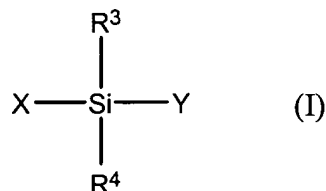


a.) Amendment to the Claims:

Claims 1-17 (Cancelled).

18. (New) A solid phase for immunoassay, said solid phase comprising an immunoassay carrier coated with a hydrophobic silicon compound, an immunoreactive substance, and a surfactant,

wherein said immunoreactive substance is immobilized on the surface of said immunoassay carrier, said immunoassay carrier surface being blocked with said surfactant, and said hydrophobic silicon compound being a compound according to following Formula (I)



in which X and Y are independently hydrogen, C₁-C₆ alkyl, or C₁-C₆ alkoxy; R³ is C₂-C₃₀ alkyl, C₂-C₃₀ alkenyl, C₂-C₃₀ alkoxy, or phenyl; and R⁴ is C₁-C₃₀ alkyl or C₁-C₃₀ alkoxy.

19. (New) The solid phase for immunoassay according to claim 18, wherein said hydrophobic silicon compound is alkyltrialkoxysilane, vinyltrialkoxysilane or phenyltrialkoxysilane.

20. (New) The solid phase for immunoassay according to claim 19, wherein said hydrophobic silicon compound is octadecyltriethoxysilane.

21. (New) The solid phase for immunoassay according to claim 18, wherein said carrier is glass, quartz or a ceramic.

22. (New) The solid phase for immunoassay according to claim 18, wherein said substrate is glass fiber.

23. (New) The solid phase for immunoassay according to claim 18, wherein said carrier is porous.

24. (New) The solid phase for immunoassay according to claim 18, wherein said carrier is a membrane consisting essentially of glass fibers.

25. (New) The solid phase for immunoassay according to claim 18, wherein said surfactant is a nonionic surfactant.

26. (New) The solid phase for immunoassay according to claim 25, wherein said nonionic surfactant is a linear alkylpolyoxyethylene ether, a sorbitan-alkylpolyoxyethylene ether, or an alkylphenylpolyoxyethylene ether.

27. (New) The solid phase for immunoassay according to claim 25, wherein said nonionic surfactant has a hydrophilic group and a polyoxyethylene chain.

28. (New) The solid phase for immunoassay according to claim 18, wherein said immunoreactive substance is an antibody or a fragment thereof.

b.) Remarks

The claims have been amended in order to recite the present invention with the specificity required by statute. For the Examiner's convenience, new claim 18 corresponds to original claims 6, 15 and 16 where integer a is 0 (see original claim 5 and the specification as filed at page 4, line 20). Additionally, claims 19-25 correspond to original claims 7, 8, 10-13 and 17, respectively. Finally, the subject matter of claims 26-28 is taught in the specification as filed from page 6, line 25 to page 7, line 2, page 7, lines 21-23 and page 8, lines 3-4. Accordingly, no new matter has been added.

The Examiner requested that Applicants provide English-language translations of Japanese laid-open patent application publication Nos. JP 4-279664, JP 4-356527 and JP 4-232858, cited in the "International Preliminary Examination Report." As understood, the Examiner meant the September 7, 1999 International Search Report. Clarification is respectfully requested in the next Patent Office communication.

Meanwhile, the undersigned wishes to confirm that all of the cited Japanese Laid-open patent applications have U.S. counterparts. That is to say, JP 4-279664, JP 4-356527 and JP 4-232858 correspond to U.S. 5,232,782, U.S. 5,178,947 and U.S. 5,248,620, respectively. U.S. Patent No. 5,178,947 was already cited in the October 25, 2004 Information Disclosure Statement. The remaining two U.S. patents are in the accompanying Supplemental Information Disclosure Statement.

Claims 1-13 and 15-17 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The bases of this rejection (points a-e) are all attended to by the forgoing amendment. As to point f, "immunoreactive

substrate”, such is now “immunoreactive substance”, which term is found in the specification as filed at page 6, line 25, et seq.

Claims 1-3, 5-7, 9-13 and 15-17 are rejected under 35 U.S.C. §112, first paragraph, as failing to enable those of ordinary skill. The Examiner’s legal or factual bases for this is not provided, but the rejection should be addressed by foregoing amendment. Of course, if the rejection is maintained, then the Examiner is respectfully requested to provide Applicants with a personal affidavit under MPEP §2144.03 so Applicants may respond to the same.

Claims 1-13 and 15-17 are rejected under 35 U.S.C. §112, first paragraph, because the claim would encompass covalently affixed compounds. In response, claim 18 now explicitly recites that the hydrophobic silicon compound is “coated” on the immunoassay carrier.

Claims 1-3, 5-7, 9-13 and 15-17 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement because methods of producing the claimed compounds are not taught. This rejection is not well-understood since producing the compounds is either trivial, routine or unnecessary in view of their commercial availability (for instance, many are available for purchase from Dow Corning). Accordingly, if this rejection is maintained, the Examiner is again respectfully requested to provide Applicants with an appropriate Declaration under MPEP §2144.03.

Claims 1-6 and 9-13 are rejected under 35 U.S.C. §102(b)/(e) as being anticipated by each of Delamarche (*Science*, Vol. 276, (5313) 779-781 (1997), Charmot (U.S. Patent No. 5,178,947), Bogart (U.S. Patent No. 5,468,606), Kossovsky (U.S. Patent No. 5,798,220), Becker (U.S. Patent No. 5,187,066), Dubrow (U.S. Patent No. 5,037,667),

Kiaei (U.S. Patent No. 5,639,626) or Anstett (U.S. Patent No. 6,140,263), Ciba (EP 713,095) or Chu (U.S. Patent No. 6,284,194).

This rejection is respectfully traversed.

In particular, Delamarche, Kossobvsky, Dubrow, Kiaei, Ciba and Chu all relate to dimethylsiloxanes. However, none teaches or suggests any compound according to pending Formula (I).

Accordingly, this leaves the rejection over Charmot, Anstett, Bogart and Becker. Charmot teaches a magnetizable composite microsphere having an alkoxysilane shell structure and Anstett discloses a porous support impregnated with tetramethoxysilane, used for gas separation. However, neither Charmot nor Anstett teach or suggest a carrier to which an immunoreactive substance is bound.

Bogart discloses a silane compound, but does not teach or suggest a solid phase blocked with surfactant.

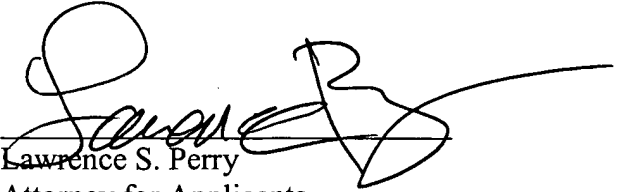
Finally, Becker discloses measuring an amphiphilic antigen using a hydrophobic solid phase treated with alkoxysilane. However, Becker too does not teach or suggest any surfactant, let alone one that blocks the immunoassay carrier surface.

In view of the above amendments and remarks, Applicants submit that all of the Examiner's concerns are now overcome and the claims are now in allowable condition. Accordingly, reconsideration and allowance of this application is earnestly solicited.

Claims 18-28 remain presented for continued prosecution.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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